

REMARKS

The allowance of Claims 9-16 is gratefully acknowledged.

The spelling of the word "desiccation" in Claim 1 has been corrected.

Claims 1-3, 6, 7, 18-20 and 23 were rejected under 35 U.S.C. §102(b) as anticipated by or obvious under 35 U.S.C. §103(a) over US Pat. 4,419,998 (Heath). To clarify the present invention over Heath, Claims 1 and 18 have been amended. Amended Claim 1 describes an electrode comprising an electrode body having a first and second side, wherein the first side comprises a flexible, non-conductive moisture barrier layer comprising a heat-sealable periphery with a peel tab extending therefrom and the second side comprises a conductive layer; an electrically conductive gel layer disposed on the electrode body and which is further in electrical communication with the conductive layer, the periphery of the heat-sealable moisture barrier layer extending beyond the periphery of the gel layer; and a rigid non-conductive release liner to which the flexible moisture barrier layer is heat-sealed around the periphery of said gel layer by a heat seal with the gel layer in contact with the release liner to form a vapor, air, and/or moisture-proof enclosure of the gel layer so that the electrode may be stored in a desiccation-retarding condition without the need for storing the electrode in a separate desiccation-retarding pouch or envelope. The claimed invention provides superior desiccation retardation as compared to a cover which is merely adhesively applied over the gel layer, so much so that a tab is needed to peel the electrode from the rigid release liner. The Heath patent describes an electrode system that can be connected to an ECG system, a stimulation system, and a defibrillator. A gel foam disk of the electrode is protected by a cover which is secured to the adhesive layer on a ring which holds the gel foam disk in place (col. 15, lines 9-19). Heath gives no consideration to heat-sealing, only an adhesive seal. The adhesively-attached cover is so lightly held in place that it is simply "removed" from the Heath electrode without need of a tab, handle, or other means to securely grasp the cover to pull it off. A peel tab is not suggested by Heath because Heath does not contemplate peeling his electrode from the cover. It is simply removed from the electrode. Furthermore, Heath's cover sits above the gel foam disk, leaving an air pocket above the gel. His cover appears to enlarge this air pocket by its concave shape, much like the concave cover of a domed cake plate cover which sits above the cake. But in this case the concave shape enlarges the air space between the gel foam disk and the inside of the cover, increasing the possibility that the gel will dry out. By contrast, the gel layer of the electrode of Claim 1 is in contact with the release liner as stated on page 9, lines 22-31 of the specification,

eliminating any air space between the gel and the release liner which could tend to dry out the gel. For all of these reasons it is respectfully submitted that Claim 1 and its dependent Claims 2-7 cannot be anticipated by or rendered obvious by Heath.

Amended Claim 18 describes a self-storing electrode system comprising first and second electrode bodies each having a first and second side, wherein the first side comprises a flexible, non-conductive moisture barrier layer having a heat-sealable periphery with a peel tab extending therefrom and the second side comprises a conductive layer which does not extend to the periphery of the moisture barrier layer; an electrically conductive gel disposed on each of the electrode bodies which is in electrical communication with the conductive layer of each electrode; a rigid release liner sealed by a heat seal to the periphery of the flexible moisture barrier layer of each electrode body with the gel in contact with the release liner to enclose, protect and prevent desiccation of the gel layer of each electrode body without the need for a separate enclosure such as a pouch or envelope; and a lead wire electrically coupled to each electrode body by means of a path that does not disrupt the moisture integrity of the release liner seal. It is respectfully submitted that amended Claim 18 is patentable over Heath for the reasons given above with respect to Claim 1. Further, it is evident that each Heath electrode is covered by its own separate cover. There is no suggestion and no apparent way that Heath can use one of his covers to cover multiple electrodes. It is also seen that the conductive line 43 in Heath passes between the base 67 and the holding ring 79, affording an additional space for air ingress around the insulation of the conductor. Heath makes no mention of this problem, which disrupts the integrity of his moisture-proof seal. For all of these reasons it is respectfully submitted that Claim 18 and its dependent Claims 19-21 and 23 are not anticipated by and are patentable over Heath.

Several of the dependent claims (4, 5, and 21) were rejected under 35 U.S.C. §103(a) by combining US Pat. 4,989,607 (Keusch) with Heath. The Keusch invention is a specially-formulated hydrogel sheet which is stored in moisture-impermeable packet or envelope (col. 14, lines 35-39 and col. 13, lines 36-65) prior to use. Keusch adds none of the elements of the inventions of Claims 1 and 18 described above to render these claims unpatentable by a combination with Heath. To the contrary, the use of the standard foil envelope by Keusch shows the need for storing a Keusch electrode in a separate desiccation-retarding pouch or envelope, contrary to the language of Claims 1 and 18. Keusch recognizes that such pouches or envelopes are conventionally heat-sealed, but fails to recognize that heat-sealing could be applied to an electrode moisture barrier layer to provide

a sealed enclosure without the need for a separate pouch or envelope. Accordingly it is respectfully submitted that Claims 1 and 18 and their dependent Claims 4, 5, and 21 are patentable over Heath and Keusch.

In view of the foregoing amendment and remarks, it is respectfully submitted that Claims 1-3, 6, 7, 18-20 and 23 are patentable over Heath and that Claims 4, 5, and 21 are patentable over Heath and Keusch. Accordingly it is respectfully requested that the rejection of these claims under 35 U.S.C. §102(b) and §103(a) be withdrawn.

In light of the foregoing amendment and remarks, it is respectfully submitted that this application is now in condition for allowance. Favorable reconsideration is respectfully requested.

Respectfully submitted,

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